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| 10/589,813  | 05/11/2007  | Masao Yamamoto       | 524168-0356863(SUZ0037-US | 3871             |
| 92411   | 7590        | 09/15/2010           | EXAMINER                  |                  |
| Plumsea Law Group, LLC<br>10411 Motor City Drive<br>Suite 320<br>Bethesda, MD 20817 |             |                      | XAVIER, ANTONIO J         |                  |
|   |             |                      | ART UNIT                  | PAPER NUMBER     |
|   |             |                      | 2629                      |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/589,813

**Applicant(s)**

YAMAMOTO, MASAO

**Examiner**

ANTONIO XAVIER

**Art Unit**

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 1-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/C)
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date 8/17/06 and 8/4/10.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group III (Claim 12) in the reply filed on August 2, 2010 is acknowledged.

Claims 1-4 and 7-11 are cancelled.

Claims 5 and 6 are withdrawn.

Claim 12 will be examined on the merits.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tomine et al. (WO 03/048838) in view of Fortini (U.S. Pat. No.: 4,367,929).

With respect to Claim 12, Tomine teaches an image display apparatus comprising a main body that is mountable onto a body of a user, and is used by mounting the apparatus onto the body of the user at a time of use (Figs. 2-4, 12-14, 21, 24A-26, 29A-37E and 41 and Abstract teach various head mounted displays), wherein:

the main body is provided with first display means that is positioned in front of one eye of a user when using the image display apparatus (Figs. 2-4, 12-14, 21, 24A-26, 29A-37E and 41 and p. 12, line 15-p.13, line 2 teach various display means embodiments including, but not limited to, first and second pivotable display pods. Examiner notes either the left or right pod can be considered a first display means), and by guiding an image light of a predetermined image to the one eye, allows the image to be viewed with the one eye in a state in which the image is present in a display region that is one part of a field of vision of the one eye (Fig. 12, Abstract and p. 7, line 26-p.8, line 3), and second display means that is positioned in front of an other eye of the user when using the image display apparatus (Figs. 2-4, 12-14, 21, 24A-26, 29A-37E and 41 and p. 12, line 15-p.13, line 2 teach various display means embodiments including, but not limited to, first and second pivotable display pods. Examiner notes the either the right or left pod can be considered a second display means), and by guiding an image light of a predetermined image to the other eye, allows the image to be viewed with the other eye in a state in which the image is present in a display region that is one part of a field of vision of the other eye (Fig. 12, Abstract and p. 7, line 26-p.8, line 3);

both the first display means and the second display means are provided on the main body so as to be swingable in a vertical direction when the main body is mounted

on the body of a user (Figs. 3-4, 13-14, 30, 32A-32B and 41, Abstract and p. 8, lines 4-10, p.12 and line 15-p.13, line 2 teach various embodiments to rotate the display so that it is swingable in a vertical direction);

the user having the main body mounted on their body can view the surrounding environment with both eyes by at least moving their line of sight (Fig. 12, Abstract and p. 7, line 26-p.8, line 3);

the main body comprises two temples formed in a substantially rod shape (Figs. 12-14, 21, 24A-26, 29A-37E and 41, Abstract and p.11, lines 5-9 teach various embodiments with temple arms formed in a substantially rod shape) that are fixed to both ears of the user by latching tips of the two temples onto the user's two ears (Figs. 12-14, 21, 24A-26 and 29A-37E, Abstract and p.11, lines 5-9 teach various embodiments with temple arms fixed to both ears of the user. Examiner notes a reasonably broad interpretation of "latching tips of the two temples onto the user's two ears" is not limited to placement of the temple arm between the ear and head), and a frame that is provided with the first and second display means (Figs. 29A-32B, p.11, lines 5-9 and p. 12, line 15-p.13, line 2 teach various embodiments for a frame including first and second pivotable display pods), in which two ends of the frame are connected with base ends of the temples (Fig. 21, items 2112, 2114a and 2114b, Abstract, p. 9, line 22-p. 10, line 18 and p.11, lines 5-9 teach various embodiments with temple arms attached to the ends of the frame), and the frame is positioned in front of a face of the user when the tips of the two temples are latched onto the user's two ears (Fig. 21,

items 2112, 2114a and 2114b, Abstract, p. 9, line 22-p. 10, line 18 and p.11, lines 5-9 teach various embodiments where the frame is positioned in front);

both the first and second display means comprises a display that displays the image and an optical system that guides an image light from the display to an eye on a side corresponding to the display means (Figs. 29A-32B and 41 and p. 12, line 15-p.13, line 2 teach first and second pivotable display pods).

However, Tomine fails to expressly teach Applicant's specific temple with a variable angle between the base end portion and tip of each temple. Specifically, Tomine fails to expressly teach the base end portion and tip portion of each of the two temples are formed of separate members that are connected by a connecting member, and by enabling the base end portion to be rotated with respect to the tip portion by employing the connecting member as a rotation shaft, an angle formed by a base end portion and a tip portion of each temple is variable; by altering angles formed by the base end portions and the tip portions of the two temples, the first and second display means can swing in a vertical direction when the main body is mounted on the body of the user (emphasis added).

Fortini teaches eyeglasses with a variable angle between the base end portion and tip of each temple (Figs. 1-5 and 8-13, Abstract and Col. 1, lines 11-16 and Col. 1, line 62-Col. 2, line 61). Specifically, Fortini teaches the base end portion and tip portion of each of the two temples are formed of separate members that are connected by a connecting member (Figs. 1-5 and 8-13, Abstract and Col. 1, lines 11-16 teach various embodiments of an articulating temple. Examiner notes Fig. 9 is of particular interest to

the limitations as currently claimed as well as Figs. 12A-12B of the specification as filed), and by enabling the base end portion to be rotated with respect to the tip portion by employing the connecting member as a rotation shaft (Figs. 1-5 and 8-13 and Col. 2, lines 13-25), an angle formed by a base end portion and a tip portion of each temple is variable (Figs. 1-5 and 8-13 and Col. 2, lines 13-25); by altering angles formed by the base end portions and the tip portions of the two temples, the first and second display means can swing in a vertical direction when the main body is mounted on the body of the user (Figs. 1-5 and 8-13 and Col. 2, lines 13-25). It would have been obvious to modify the image display apparatus of Tomine to include the articulating temples of Fortini to permit a better positioning of the lenses.

Tomine in view of Fortini teach an image display apparatus with articulating temples that form a variable angle. However, Tomine in view of Fortini fail to expressly teach a lens barrel that is configured to house at least one part of the optical system and to protrude in a direction facing the eye on the corresponding side when using the image display apparatus; and when the two temples are viewed from the side, the two connecting members and the tip of the lens barrel are positioned in a straight line.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to modify the displays, including but not limited to the pivotable display pods, of Tomine in view of Fortini to include (1) a lens barrel that is configured to house at least one part of the optical system and to protrude in a direction facing the eye on the corresponding side when using the image display apparatus; and (2) position the lens barrel such that when the two temples are viewed

from the side, the two connecting members and the tip of the lens barrel are positioned in a straight line because Applicant has not disclosed that (1) configuring the display means to include a lens barrel housing at least one part of the optical system and protruding in a direction facing the eye provides an advantage, is used for a particular purpose, or solves a stated problem. Furthermore, Applicant has not disclosed that (2) positioning the lens barrel such that when the two temples are viewed from the side, the two connecting members and the tip of the lens barrel are positioned in a straight line provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the pivotable display pods and articulating temple arms of Tomine in view of Fortini because both Applicant's claimed invention and the image display device of Tomine in view of Fortini provide a head mounted display that can be adjusted to improve the viewing position. Therefore, it would have been an obvious matter of design choice to (1) configure the display means to include a lens barrel housing at least one part of the optical system and protruding in a direction facing the eye and (2) position the lens barrel such that when the two temples are viewed from the side, the two connecting members and the tip of the lens barrel are positioned in a straight line.



***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- a. Hirtenstein (U.S. Pat. No.: 2,172,959), Wadsworth (U.S. Pat. No.: 6,728,974) and Medana (U.S. Pat. No.: 6,893,125) teach variable angles between the tips and base of the temples.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTONIO XAVIER whose telephone number is 571-270-7688. The examiner can normally be reached on M-F 6:30am-12:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571-272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 2629

/A. X./

Examiner, Art Unit 2629

/Amare Mengistu/

Supervisory Patent Examiner, Art Unit 2629